National Aeronautics and Space Administration
NASA Marshall Star: May 10, 2007: Vol. 47/No. 33

MARSHALL STAR

Serving the Marshall Space Flight Center Community **May 10, 2007**

Marshall team assisting with investigation of train derailment and evaluation of reusable solid rocket motor segments

By Lori Meggs from combined reports

Officials from the Marshall Center and ATK Launch Systems of Brigham City, Utah, are assisting the Federal Railroad Administration in its investigation of the May 2 train derailment near Linden, Ala., about 35 miles south of Demopolis. The train was transporting space shuttle reusable solid rocket motor segments from ATK's manufacturing site in Brigham City to NASA's Kennedy Space Center, Fla.

A team from Marshall's Reusable Solid Rocket Booster Project Office, Engineering Directorate, Safety & Mission Assurance Directorate, and Office of Strategic Analysis & Communications Public & Employee Communications Office traveled to the scene within hours of the mishap to assist in the safe recovery and initial evaluation of the solid rocket motor segments and to assist the investigation teams.

"I couldn't be prouder of our team's quick response and efforts in this terrible incident," said Jody Singer, manager of the Reusable Solid Rocket Booster Project at Marshall. "Our team is committed to understanding what happened and ensuring that these segments are safe to move on."

The special train transporting the segments and a passenger car with technicians on board to monitor the rocket segments, was crossing a bridge or trestle that collapsed under the locomotives. Six people were injured when the two locomotives and the passenger car dropped about 10 feet and turned on their sides.

One of the cars carrying a solid rocket motor segment also fell on its side. The remaining cars containing seven solid rocket motor segments and two aft exit cone segments remained upright.

"Several members of the NASA family were injured in this serious accident," said NASA's Space Shuttle Program Manager Wayne Hale. "Our prayers are for those who were injured and their families. Our

See Derailment on page 4

NASA successfully completes engine hardware tests for Ares V

By Sheri Bechtel

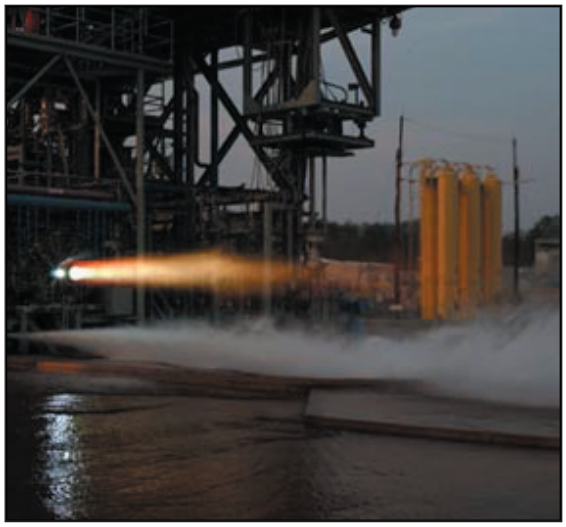
NASA engineers have successfully completed testing of subscale main injector hardware, an early step in development of the RS-68 engine that will power the core stage of NASA's Ares V — the cargo launch vehicle that will deliver large-scale hardware and systems to space for exploration missions to the moon.

Engineers at the Marshall Center recently conducted multiple hot-fire tests on the injector hardware. The injector is a major component of the engine that injects and mixes liquid hydrogen and liquid oxygen propellants in the combustion chamber, where they are ignited and burned to produce thrust.

The tests support the design and development of Ares V under the Constellation Program, which is responsible for overall development of the spacecraft and launch vehicles systems for NASA's exploration initiative to return to the moon and travel to Mars and destinations throughout our solar system.

For more information, visit http://www.nasa.gov/centers/marshall/news/news/releases/2007/07-053.html.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.



NASA

Subscale main injector hardware tests were conducted March 9 at the Marshall Center's East Test Stand.

1923-2007

Astronaut Walter Schirra passes away

NASA Headquarters news release

Wally Schirra, the only astronaut to fly in the Mercury, Gemini and Apollo programs, has died. He was 84 years old.

Schirra's NASA career began with his selection as one of the original seven Mercury astronauts in 1959 and spans the period from America's first tentative steps into space to the missions to the moon. The seven were chosen from among 110 selected test pilots from the Air Force, Navy and Marine Corps after exhaustive physical and psychological examinations.

Schirra flew on the fifth Mercury flight in 1962, orbiting the Earth six times. He commanded Gemini 6A in 1965, a flight with Tom Stafford that had the historic distinction of being the first rendezvous of two manned, maneuverable spacecraft. Gemini 6A and Gemini 7 flew in formation for five hours, as close as one foot to one another.

Schirra also commanded Apollo 7, the first manned Apollo flight. During that 11-day flight in Earth orbit in 1968, he and fellow crew members Walt Cunningham and Donn Eisele tested the systems and proved the Apollo was ready to take astronauts to the moon.

In what was a precursor of things to come, Apollo 7 transmitted the first live television feed into commercial networks from space during its 260-hour flight.

"With the passing of Wally Schirra, we at NASA note with sorrow the loss of yet another of the pioneers of human spaceflight," NASA Administrator Michael Griffin said. "As a Mercury astronaut, Wally was of a member of the first group of astronauts to be selected, often referred to as the Original Seven."

Fellow Mercury astronaut Scott Carpenter called Schirra a "dear friend, cherished comrade and a brother."

"Despite our good-natured competition for flights into space," said Carpenter, "Wally strove to bring a smile to everyone he met, and it's with a smile that I will forever fondly remember him."

President Bush also mourned Schirra's passing. "His ventures into space furthered our understanding of manned space flight and helped pave the way for mankind's first journey to the moon," said the president. "Laura and I join Wally's family and friends and the NASA community in mourning the loss of an American hero."

Schirra retired from the Navy as a captain and from NASA in 1969 and became a commentator with CBS Television. His enthusiasm and knowledge of the space program made him a widely known national and international figure.

He complemented Walter Cronkite, a now-retired American broadcast journalist, and the two became a powerful space-coverage team. Schirra worked for CBS from 1969 to 1975. He also engaged in a range of business activities and, in 1979, formed his own consultant company, Schirra Enterprises.

Schirra was born in Hackensack, N.J., on March 12, 1923. He graduated from the U.S. Naval Academy in 1945, and from Naval Flight Training at Pensacola Naval Air Station, Fla., in 1947. After service as a carrier-based fighter pilot and operations officer, he attended the Naval Test Pilot School at Patuxent River, Md. During the Korean War, he flew F-86 Sabres under an exchange program with the Air Force.

Schirra's military awards included the Navy Distinguished Service Medal, three Distinguished Flying Crosses, three Air Medals, two NASA Distinguished Service Medals, the NASA Exceptional Service Medal and the Philippines Legion of Honor.

For more information about the life of Schirra, visit http://www.nasa.gov/vision/space/features/walter_schirra.html.

NASA

At right, Dr. Wernher von Braun, Marshall's first center director, greets astronaut Walter M. Schirra Jr., commander of the Apollo 7 mission, during the mission briefing at Kennedy Space Center. This mission, boosted by a Saturn IB launch vehicle Oct. 11, 1968, was the first flight of the Apollo spacecraft with a crew.

NASA Engineering and Safety Center

Marshall's George Hopson named one of the first 12 NASA technical fellows for propulsion

By Lori Meggs

The Marshall Center's George Hopson, a member of the NASA Engineering and Safety Center, was named one of the first 12 NASA technical fellows in a ceremony last month in Hampton, Va.

The NASA Technical Fellows Program was established to recognize technical excellence and provide agencywide leadership of each engineering discipline, with members of the engineering and safety center supporting the Office of the Chief Engineer.

Hopson — a 45-year NASA veteran — is a recognized expert in the engineering discipline of propulsion. When a propulsion issue arises on a NASA spacecraft, the engineering and safety center looks to Hopson.

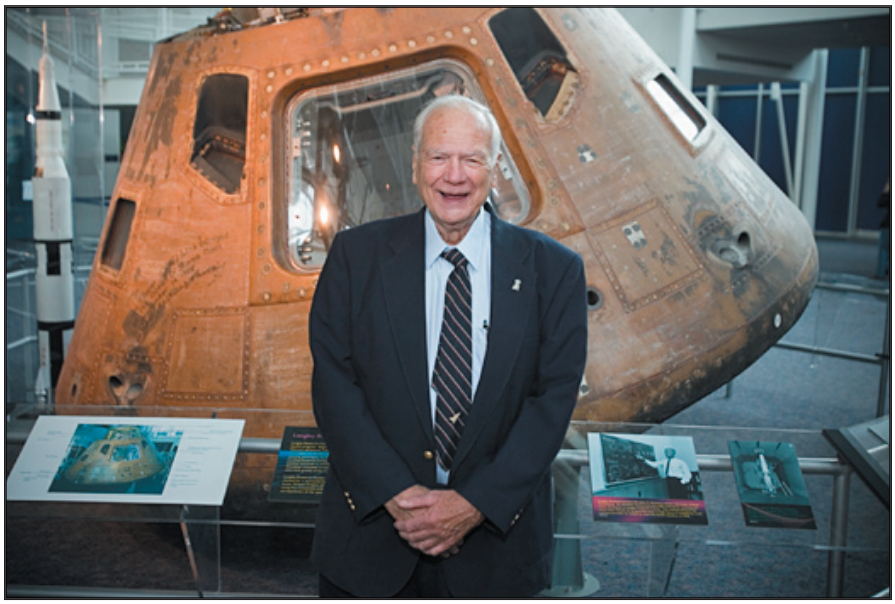
The NASA Engineering and Safety Center is independent of project offices and their institutional engineering support. The center may perform independent analyses and testing as deemed necessary. The purpose is not to duplicate but to supplement institutional engineering for any and all NASA projects. As an arm of the Office of the Chief Engineer, the center identifies and resolves organizational differences in risk assessment.

Hopson's experience in propulsion dates back to the development and flight operations of Saturn stage engines. Hopson also has worked on all space shuttle propulsion elements, including the main engines, solid rocket boosters, reusable solid rocket motors and external tank.

"The new designation of technical fellows was motivated by the success of the engineering and safety center," said NASA Chief Engineer Chris Scolese. "NASA technical fellows will provide stewardship of their respective disciplines for the agency."

The 11 other technical fellows for the NASA Engineering and Safety Center reside at Langley Research Center in Hampton, Va.; Ames Research Center in Moffett Field, Calif.; Goddard Space Flight Center in Greenbelt, Md.; and the Johnson Space Center in Houston.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.



Courtesy photo

George Hopson

Public Service Recognition Week

Marshall's Monsi Román honored for outstanding work

By Jessica Wallace

From May 7 to 13, NASA joins the government in celebrating Public Service Recognition Week. This recognition week honors the men and women who serve America as federal, state and local government employees.

Monserrate "Monsi" Román, manager of Exploration Life Support in the International Space Station Vehicle Office in Marshall's Science & Mission Systems Office, will be honored by the U.S. Office of Personnel Management for her outstanding work for the government. Román is invited to attend an annual meeting of the Chief Human Capital Officers Council in Washington to share her experiences as a federal employee.

In December, Román participated in an advertising campaign designed to bolster federal employee recruitment. The "What Did You Do At Your Job Today?" video series, launched last May by the Office of Personnel Management, spotlights individuals working in unique posts across the federal government. The ads highlight the breadth of government job opportunities available around the nation.

The recruitment video featuring Román can be viewed at http://www.opm.gov/Video_Library/RecruitmentShowcase.

The writer, an ASRI employee and Marshall Star editor, supports the Office of Strategic Analysis and Communications.

Dr. John Horack to speak at Marshall Association luncheon

The Marshall Association will hold its next luncheon meeting Monday, May 14, at 11 a.m., in Activities Building 4316. Dr. John Horack, manager of the Marshall Center's Science and Mission Systems Office, will speak on the subject of "The Future of Space Exploration and the Role of the American South."


John Horack

The association also will announce plans for its 2007 Academic Scholarship drive at the luncheon. Each year, the association accepts nominations and then typically grants two scholarship awards — one for studies in science and/or engineering, and one for studies in a non-technical field. The scholarship activity enables the organization to give back to the Marshall Center family and to encourage young people in their pursuit of higher education.

The luncheon is $11 for Marshall Association members and $13 for non-members, payable at the door. Contact Beth Shelton at elizabeth.c.shelton@nasa.gov or 544-9212 by noon Thursday, May 10, to reserve seating.

In an effort to reduce the impact to the scholarship fund of luncheon no-shows (an out-of-pocket expense for the association), everyone who makes a reservation will be responsible for paying the cost of lunch or sending a replacement attendee.

For employees interested in joining the association, a $25 membership fee can be paid at the door May 14. Membership fees go directly to the scholarship fund.

Marshall employees invited to participate in Asian Pacific American Heritage Month events

By Sherrie Super

Marshall employees are invited to participate in Team Redstone events marking Asian Pacific American Heritage Month, observed each May. Team Redstone, which includes the Marshall Center, has planned activities tied to the theme: "Pursuing Excellence Through Leadership, Diversity, and Unity."

Team Redstone also will sponsor display and essay contests during the month-long celebration. Employees are encouraged to enter a two-page, double-spaced essay or a stationary display of their choice that relates to the observance theme.

Essay writers can send entries to: Commander, USAG-Redstone Arsenal, Attn: AMSAM-RA-EO (Sgt. 1st Class Monique Mixon), by fax at 256-876-8947 or by e-mail at monique.c.mixon@redstone.army.mil. Or contact Commander USAOMEMS, Attn: ATKS-AE (Master Sgt. Tuynuykua Jackson), by fax at 256-842-6853 or by e-mail at tuynuykua.jackson@redstone.army.mil.

Display entrants should provide notification to Mixon or Jackson of the display location and a point of contact. All entries are due by Wednesday, May 16. The submissions will be judged beginning May 17.

Plaques and trophies will be awarded to winners on May 31 at the Asian Pacific American Heritage Month Observance Luncheon at the Redstone Arsenal Officer's and Civilian's Club.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

Derailment

Continued from page 1

employees work in hazardous jobs every day, and it is our goal to keep them safe."

Solid rocket motor segments have been transported across country by rail for more than 26 years with an excellent record of safe transportation. Each segment weighs approximately 300,000 pounds and is protected by fiberglass cover during shipment.

NASA managers have agreed to ship some of the segments back to the Utah plant for further evaluation, and others will continue their journey to Kennedy Space Center, where they will undergo a thorough analysis.

The hardware was intended for use on Space Shuttle Discovery's STS-120 mission in October and Space Shuttle Atlantis' STS-122 mission in December. These segments are interchangeable, and ATK Launch Systems has replacement units that could be used for the shuttle flights if necessary.

The Marshall Center manages the reusable solid rocket motors for the Space Shuttle Program.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

'Focus on Marshall' gets fired up with injector testing, shows how Great Moonbuggy Race drives students to science

By Jessica Wallace

Ever wonder what Marshall engineers are up to at the test stands? Or how the Great Moonbuggy Race can drive a student's career interests?

On the May episode of "Focus on Marshall," Warren Peters, a combustion devices test lead for the Ares Upper Stage Engine in the Engineering Directorate, explains what usually goes on in Test Stand 116 in the East Test Area, the site where Marshall recently conducted multiple hot-fire tests on subscale main injector hardware. The program also takes viewers inside the block house — a safe haven from which the team conducts the tests. Peters will discuss why Marshall is testing the RS-68 injector.

The "Focus on Marshall" team also "races to the moon" at NASA's 14th annual Great Moonbuggy Race. Viewers will see the effort required by 60 high school and college student teams to test their engineering skills at the U.S. Space & Rocket Center. The teams spend many months designing, building and testing their own moonbuggies — vehicles similar to the original lunar rovers designed and built at Marshall and used by astronauts to traverse the moon's surface during the Apollo landings in the 1970s. Dr. Frank Six, university affairs officer for Marshall's Office of Academic Affairs, discusses how events such as the moonbuggy race lead students to pursue careers in science, technology, engineering and math — the key ingredients to further NASA's mission in returning to the moon and going to Mars.

"Focus on Marshall" airs on Marshall TV and on Desktop TV the first and third Tuesday and Thursday of each month at 11 a.m., noon and 1 p.m. The program also will be posted on "Inside Marshall" and the Marshall home page within the NASA portal Web site.

The writer, an ASRI employee and Marshall Star editor, supports the Office of Strategic Analysis and Communications.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue is 4:30 p.m. Thursday.

Miscellaneous

AKC German Shepherd puppies, black/tan, born Jan. 23, vet-checked, $500. 828-3373

Indy 500 tickets, Memorial Day weekend, four paddock seats, $90 each. 679-3565

Four plots in TriCities Memorial, Florence, $4,000. 436-1106

Nintendo Wii game system bundle with five sports games, $320. 828-1234

Yerf Dog go-cart, $900 obo. 828-0815

Trampoline, needs new mat, $30. 961-0288

Samsung 32-inch HDTV CRT with remote, $520. 655-1986

Bike carrier, fits 2-inch receiver hitch, carries up to 4 bikes, $55. 325-2919

75 ft of hardware cloth, 1/4-inch-by-3-foot, in sections, $30; Siemens cellphone, charger, $10. 655-6348

Flagstones, various sizes/shapes, enough to cover 120 sq. feet, $25. 348-9381

15-hp riding lawnmower, for parts only, $25 firm. 828-0901

Invacare power wheelchair, used under 2 months, $3,000. 379-2512

Patio set, rectangular tempered glass table, 38.5x60, six chairs, taupe metal finish, $100. 772-1989

4-ft vinyl picket fence, 4-foot to 8-foot sections, gate, all hardware, $150. 353-4922

Military parachute for boat/RV/car cover, 35-foot diameter, $40. 527-8116

Gandy pool table, full-sized slate bed, $1,400. 353-8918

Bowflex, $300; large tank compressor, $100; Playstation 2, games, accessories. 864-2629.

Oak dining table, four chairs, leaf, $400. 777-7228

Kids Chopper bicycle, $75. 468-9377

Craftsman wood lathe on 5-drawer stand with storage area, $300. 852-2255

5-piece solid oak bedroom set, includes 2 dressers, 2 hutches, desk, $450. 337-1471

Amish 3-piece bedroom suite, oak, handmade, $2,500; antique mahogany curio, $100. 653-9222

Ford F150 and Sport Track bed extender, $50. 527-8116

Set of four 16-inch, 6-lug aluminum wheels/tires from 2001 GMC pickup, $250. 655-5483/852-2438

Vehicles

2006 110cc dirt bike, 4 speed, semi-automatic, 4 stroke, $400. 858-5552

2005 Toyota Camry LE, burgundy, heated tan leather, 40K miles, $15,000. 431-7755 (leave message)

2005 Buick LaCrosse V6, white, leather, power sunroof, factory warranty, 31K miles, $15,950. 759-0478

2004 Lincoln Aviator, 2WD, white, rear DVD entertainment system, 32K miles, $22,000 firm. 541-2049

2004 Dodge Ram 1500, short wheel base, Hemi engine, $13,700. 468-9377

2002 Nissan Pathfinder SE, greenish-bronze, automatic, Bose system, power, running boards, 76k miles, $13,500. 529-2964

2002 Honda Odyssey EX, leather, heated quad seats for seven, 59K miles, $13,900. 603-1273

2002 Grand Prix GT, Bose stereo system, sunroof, 74k miles. 247-1957

2002 Kia Sedona. 233-6197

2002 Honda CH80 scooter, red, automatic, 186 miles, $1,295. 883-5955.

2000 GMC Sonoma 4X4, off road, 87K miles, $10,000. 931-967-7307

2000 Mitsubishi Galant, 4 door, sunroof, $5,000 obo. 651-3415

2000 Lincoln LS sedan, silver, sunroof, power options, 59K miles, $8,500. 214-2334

2000 Isuzu Trooper Limited, sunroof, CD changer, heated leather seats, $6,300 obo. 890-0799

1999 Oldsmobile Silhouette Premiere, red, all power, entertainment system, 152k miles, $3,200. 534-5336

1999 GMC Sierra SLE, 189k miles, $8,500. 520-6445

1997 Mazda B2300 pickup, 4 cylinder, 5 speed, a/c, 162K, $1,800 obo. 289-1639

1995 Tahoe LT, 4WD, leather, 4 door, $6,000 obo. 723-8877

1995 Maxum 2300SC cuddy cabin cruiser sport boat, $11,300. 468-1999

1992 Chevrolet Lumina van, 3800 V6, $300. 651-5847

Jayco pop-up camper, A/C, new tires, $1,500. 508-3257

Wanted

Bagger for John Deere riding mower. 527-8116

Men's road bike, any age, any condition. 334-750-1116

Gently used crib, playpen and rocking chair. 534-3948

Free

Smallish black pup, cute, smart, graceful and busy. 259-2164

Found

Pocket knife, 4203, 5th floor kitchen area. 544-4680

U.S. currency, 4200, lobby area. 544-4680

Sunglasses, 4203, 5th floor hallway. 544-4680

A special thanks from the Office of Human Capital and Academic Affairs Office

The Academic Affairs Office would like to express sincere thanks and gratitude to all the Marshall Center employees who willingly volunteered service and time for the 14th International Great Moonbuggy Race held April 13-14. The manager and staff appreciate the dedication, determination and exemplary support. Thanks again for helping to make this year's race a success.

Rockets soar May 5 during NASA's University Student Launch Initiative

A team from Mississippi State University prepares for launch.

Photos by Chris Shepherd

Student rocket scientists showcase their rocketry components.

By Sherrie Super

Following in the footsteps of NASA rocket pioneers, a new generation of rocket scientists launched their vehicles to the skies as part of NASA's University Student Launch Initiative.

Managed by the Marshall Center, the initiative provides college teams with a unique opportunity to gain practical experience in scientific research and in aerospace and engineering activities. For the students, the launches were the high point, literally, of months of work designing their rockets, complete with science payloads.

On May 5, seven of the eight university student teams made their way to the open fields of the Mid Tenn Turf, Inc. sod farm in Manchester, Tenn., where they finally let their rockets soar. One team launched April 28 from Redstone Arsenal in Huntsville. For all teams, the rocket itself was required to reach an altitude of one mile during flight and be reusable.

NASA engineers and scientists are evaluating each rocket design, including propulsion systems, materials used for construction, payload and safety features. To select the winner, which is expected be announced later this month, they also are considering the altitude reached, how the teams conducted formal reviews and the teams' Web site designs.

Teams participating in the University Student Launch Initiative are from Alabama A&M University in Huntsville; Auburn University in Auburn, Ala.; Fisk University in Nashville, Tenn.; Harding University in Searcy, Ark.; Mississippi State University in Starkville; University of Alabama in Huntsville; and Vanderbilt University in Nashville.

The writer, an ASRI employee, supports the Office of Strategic Analysis and Communications.

Marshall joins Team Redstone in Great American Cleanup

The Marshall Center can help tidy up Huntsville by participating in Keep America Beautiful's Great American Cleanup. Operation Green Team, a city-funded organization for improving waste handling; the Solid Waste Disposal Authority of Huntsville/Madison County; and Sprint have partnered with Keep America Beautiful to recycle old cell phones.

In a joint effort with Redstone Arsenal, Marshall employees can donate used cell phones at arsenal gates 1, 3, 7, 8, 9 and 10 from now until 9 a.m., Thursday, May 31.

For more information, go to "Inside Marshall."

MARSHALL STAR

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